

# SEQUENCE LISTING

<110> Hageman, Robert V.  
Shirley, Bret A.  
Bajwa, Kamaljit K.

<120> Stabilized FGF Formulations Containing  
Reducing Agents

<130> PP16021.002

<150> 60/229,238

<151> 2000-08-31

<160> 8

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 146

<212> PRT

<213> Homo sapiens

<400> 1

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Phe	Lys	Asp	Pro	Lys	Arg	Leu	Tyr	Cys	Lys	Asn	Gly	Gly	Phe	Phe	Leu
			20					25					30		
Arg	Ile	His	Pro	Asp	Gly	Arg	Val	Asp	Gly	Val	Arg	Glu	Lys	Ser	Asp
		35					40					45			
Pro	His	Ile	Lys	Leu	Gln	Leu	Gln	Ala	Glu	Glu	Arg	Gly	Val	Val	Ser
	50					55					60				
Ile	Lys	Gly	Val	Cys	Ala	Asn	Arg	Tyr	Leu	Ala	Met	Lys	Glu	Asp	Gly
65					70					75					80
Arg	Leu	Leu	Ala	Ser	Lys	Cys	Val	Thr	Asp	Glu	Cys	Phe	Phe	Phe	Glu
			85						90					95	
Arg	Leu	Glu	Ser	Asn	Asn	Tyr	Asn	Thr	Tyr	Arg	Ser	Arg	Lys	Tyr	Thr
			100					105					110		
Ser	Trp	Tyr	Val	Ala	Leu	Lys	Arg	Thr	Gly	Gln	Tyr	Lys	Leu	Gly	Ser
		115					120					125			
Lys	Thr	Gly	Pro	Gly	Gln	Lys	Ala	Ile	Leu	Phe	Leu	Pro	Met	Ser	Ala
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Lys	Ser														
145															

<210> 2

<211> 146

<212> PRT

<213> Bos taurus

<400> 2

Pro	Ala	Leu	Pro	Glu	Asp	Gly	Gly	Ser	Gly	Ala	Phe	Pro	Pro	Gly	His
1				5					10					15	
Phe	Lys	Asp	Pro	Lys	Arg	Leu	Tyr	Cys	Lys	Asn	Gly	Gly	Phe	Phe	Leu
			20					25					30		

Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp  
35 40 45  
Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser  
50 55 60  
Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly  
65 70 75 80  
Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Phe Glu  
85 90 95  
Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Ser  
100 105 110  
Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Pro  
115 120 125  
Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala  
130 135 140  
Lys Ser  
145

<210> 3  
<211> 155  
<212> PRT  
<213> Homo sapiens

<400> 3  
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Gly Ser Gly Ala Phe Pro Pro Gly His Phe Lys Asp Pro Lys Arg Leu  
20 25 30  
Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg  
35 40 45  
Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu  
50 55 60  
Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn  
65 70 75 80  
Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys  
85 90 95  
Val Thr Asp Glu Cys Phe Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr  
100 105 110  
Asn Thr Tyr Arg Ser Arg Lys Tyr Thr Ser Trp Tyr Val Ala Leu Lys  
115 120 125  
Arg Thr Gly Gln Tyr Lys Leu Gly Ser Lys Thr Gly Pro Gly Gln Lys  
130 135 140  
Ala Ile Leu Phe Leu Pro Met Ser Ala Lys Ser  
145 150 155

<210> 4  
<211> 155  
<212> PRT  
<213> Bos taurus

<400> 4  
Met Ala Ala Gly Ser Ile Thr Thr Leu Pro Ala Leu Pro Glu Asp Gly  
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Gly Ser Gly Ala Phe Pro Pro Gly His Phe Lys Asp Pro Lys Arg Leu  
20 25 30

Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg  
 35 40 45  
 Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu  
 50 55 60  
 Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn  
 65 70 75 80  
 Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys  
 85 90 95  
 Val Thr Asp Glu Cys Phe Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr  
 100 105 110  
 Asn Thr Tyr Arg Ser Arg Lys Tyr Ser Ser Trp Tyr Val Ala Leu Lys  
 115 120 125  
 Arg Thr Gly Gln Tyr Lys Leu Gly Pro Lys Thr Gly Pro Gly Gln Lys  
 130 135 140  
 Ala Ile Leu Phe Leu Pro Met Ser Ala Lys Ser  
 145 150 155

<210> 5  
 <211> 441  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> (1)...(441)

<400> 5  
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 ttc aag gac ccc aag cgg ctg tac tgc aaa aac ggg ggc ttc ttc ctg 96  
 Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu  
 20 25 30  
 cgc atc cac ccc gac ggc cga gtt gac ggg gtc cgg gag aag agc gac 144  
 Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp  
 35 40 45  
 cct cac atc aag cta caa ctt caa gca gaa gag aga gga gtt gtg tct 192  
 Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser  
 50 55 60  
 atc aaa gga gtg tgt gct aac cgt tac ctg gct atg aag gaa gat gga 240  
 Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly  
 65 70 75 80  
 aga tta ctg gct tct aaa tgt gtt acg gat gag tgt ttc ttt ttt gaa 288  
 Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Phe Glu  
 85 90 95  
 cga ttg gaa tct aat aac tac aat act tac cgg tca agg aaa tac acc 336  
 Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Thr  
 100 105 110

agt tgg tat gtg gca ctg aaa cga act ggg cag tat aaa ctt gga tcc 384  
 Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Ser  
 115 120 125  
  
 aaa aca gga cct ggg cag aaa gct ata ctt ttt ctt cca atg tct gct 432  
 Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala  
 130 135 140  
  
 aag agc tga 441  
 Lys Ser \*  
 145

<210> 6  
 <211> 441  
 <212> DNA  
 <213> Bos taurus

<220>  
 <221> CDS  
 <222> (1)...(441)

<400> 6  
 cca gcc cta cca gaa gat ggg ggg tcc ggg gcc ttc cca cca ggg cac 48  
 Pro Ala Leu Pro Glu Asp Gly Gly Ser Gly Ala Phe Pro Pro Gly His  
 1 5 10 15  
  
 ttc aaa gat cca aaa cga cta tat tgt aaa aac ggg ggg ttc ttc cta 96  
 Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu  
 20 25 30  
  
 cga atc cac cca gat ggg cga gta gat ggg gta cga gaa aaa tcc gat 144  
 Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp  
 35 40 45  
  
 cca cac atc aaa cta caa cta caa gcc gaa gaa cga ggg gta gta tcc 192  
 Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser  
 50 55 60  
  
 atc aaa ggg gta tgt gcc aac cga tat cta gcc atg aaa gaa gat ggg 240  
 Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly  
 65 70 75 80  
  
 cga cta cta gcc tcc aaa tgt gta acc gat gaa tgt ttc ttc ttc gaa 288  
 Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Phe Glu  
 85 90 95  
  
 cga cta gaa tcc aac aac tat aac acc tat cga tcc cga aaa tat tcc 336  
 Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Ser  
 100 105 110  
  
 tcc tgg tat gta gcc cta aaa cga acc ggg caa tat aaa cta ggg cca 384  
 Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Pro  
 115 120 125

aaa acc ggg cca ggg caa aaa gcc atc cta ttc cta cca atg tcc gcc	432
Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala	
130 135 140	

aaa tcc taa	441
Lys Ser *	
145	

<210> 7  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> (1)...(468)

<400> 7	
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1 5 10 15	

ggc agc ggc gcc ttc ccg ccc ggc cac ttc aag gac ccc aag cgg ctg	96
Gly Ser Gly Ala Phe Pro Pro Gly His Phe Lys Asp Pro Lys Arg Leu	
20 25 30	

tac tgc aaa aac ggg ggc ttc ttc ctg cgc atc cac ccc gac ggc cga	144
Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg	
35 40 45	

gtt gac ggg gtc cgg gag aag agc gac cct cac atc aag cta caa ctt	192
Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu	
50 55 60	

caa gca gaa gag aga gga gtt gtg tct atc aaa gga gtg tgt gct aac	240
Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn	
65 70 75 80	

cgt tac ctg gct atg aag gaa gat gga aga tta ctg gct tct aaa tgt	288
Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys	
85 90 95	

gtt acg gat gag tgt ttc ttt ttt gaa cga ttg gaa tct aat aac tac	336
Val Thr Asp Glu Cys Phe Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr	
100 105 110	

aat act tac cgg tca agg aaa tac acc agt tgg tat gtg gca ctg aaa	384
Asn Thr Tyr Arg Ser Arg Lys Tyr Thr Ser Trp Tyr Val Ala Leu Lys	
115 120 125	

cga act ggg cag tat aaa ctt gga tcc aaa aca gga cct ggg cag aaa	432
Arg Thr Gly Gln Tyr Lys Leu Gly Ser Lys Thr Gly Pro Gly Gln Lys	
130 135 140	

gct ata ctt ttt ctt cca atg tct gct aag agc tga 468  
 Ala Ile Leu Phe Leu Pro Met Ser Ala Lys Ser \*  
 145 150 155

<210> 8  
 <211> 468  
 <212> DNA  
 <213> Bos taurus

<220>  
 <221> CDS  
 <222> (1)...(468)

<400> 8  
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 Met Ala Ala Gly Ser Ile Thr Thr Leu Pro Ala Leu Pro Glu Asp Gly  
 1 5 10 15  
 ggg tcc ggg gcc ttc cca cca ggg cac ttc aaa gat cca aaa cga cta 96  
 Gly Ser Gly Ala Phe Pro Pro Gly His Phe Lys Asp Pro Lys Arg Leu  
 20 25 30  
 tat tgt aaa aac ggg ggg ttc ttc cta cga atc cac cca gat ggg cga 144  
 Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg  
 35 40 45  
 gta gat ggg gta cga gaa aaa tcc gat cca cac atc aaa cta caa cta 192  
 Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu  
 50 55 60  
 caa gcc gaa gaa cga ggg gta gta tcc atc aaa ggg gta tgt gcc aac 240  
 Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn  
 65 70 75 80  
 cga tat cta gcc atg aaa gaa gat ggg cga cta cta gcc tcc aaa tgt 288  
 Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys  
 85 90 95  
 gta acc gat gaa tgt ttc ttc ttc gaa cga cta gaa tcc aac aac tat 336  
 Val Thr Asp Glu Cys Phe Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr  
 100 105 110  
 aac acc tat cga tcc cga aaa tat tcc tcc tgg tat gta gcc cta aaa 384  
 Asn Thr Tyr Arg Ser Arg Lys Tyr Ser Ser Trp Tyr Val Ala Leu Lys  
 115 120 125  
 cga acc ggg caa tat aaa cta ggg cca aaa acc ggg cca ggg caa aaa 432  
 Arg Thr Gly Gln Tyr Lys Leu Gly Pro Lys Thr Gly Pro Gly Gln Lys  
 130 135 140  
 gcc atc cta ttc cta cca atg tcc gcc aaa tcc taa 468  
 Ala Ile Leu Phe Leu Pro Met Ser Ala Lys Ser \*  
 145 150 155